COST *and* MANAGEMENT

VOL. XXVI NOVEMBER No. 10

THE ECONOMIST'S ROLE IN DEVELOPING CANADA'S NATURAL RESOURCES
By John A. Fuller 364

Mr. Fuller, President of Shawinigan Water & Power Co., is a graduate of Princeton University. After graduation he worked with the Security Savings and Trust Co. in Portland, Oregon, and later as Secretary and Vice-President with Aldred & Company in Montreal. In 1937 he joined Shawinigan Chemicals Ltd. and in 1940 became Director and Secretary-Treasurer. He was appointed a Director and Vice-President of Shawinigan Water & Power Co. in 1945. Mr. Fuller is on the Quebec Executive of the Canadian Manufacturers' Association, is a member of the Chemical Institute of Canada, and the Advisory Committee of McGill University, and is a Registered Member of the Society of Industrial and Cost Accounting of Quebec.

THE ACCOUNTANT IN INDUSTRY
By George Moller 376

Treasurer of Robertson-Irwin Co. Ltd. in Hamilton, Ontario, Dr. Moller came to Canada in 1936 and joined Geo. A. Touche & Co. In Europe he studied Law and Political Science at the University of Prague and upon graduation received the degree of Doctor Juris. For some time he was Secretary to the Management of the Bohemian Union Bank. In this capacity he represented the Institute in the management of several large industrial operations. Dr. Moller was admitted to membership in the Institute of Chartered Accountants in 1945 and this year was accepted to Registered Membership in the Society of Industrial and Cost Accountants. His articles on education, legislation and various aspects of business procedure have been widely read throughout the world.

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SOCIETY NOTES

NATIONAL PRESIDENT VISITS MARITIME SOCIETIES

During the month of September our National President, A. Victor Madge, accompanied by the Secretary-Manager, made a tour of the Maritime Chapters. He was greeted by large attendances at all meetings, and those who were on hand to meet him were in no way disappointed. They not only heard an eloquent address of great practical interest, but they were also inspired by his limitless enthusiasm. Listening to the President, one could not help but feel a swelling of pride in being a part of the accounting profession generally, and in being associated with the Society of Industrial & Cost Accountants in particular.

The first stop was in St. John's, Newfoundland, where he met with almost 100 per cent of the Newfoundland members. The Society has been organized in this province just a little over a year, and the meeting, under the chairmanship of President Alex H. Ritcey, was devoted to a discussion of the many problems which face a young organization. How well the Newfoundland members responded to the suggestions made may be seen by the list of new members listed in this issue of Cost & Management.

In the Province of Nova Scotia, Mr. Madge addressed the first regular meeting of the Sydney Chapter, which was organized in May of this year. With over fifty persons present, the meeting, under the chairmanship of Mr. Doug Rutherford, was an outstanding success. The stop in Halifax included a meeting with the Conference Committee, under the chairmanship of Charles R. MacFadden. Plans were discussed for the 1953 Cost & Management Conference, which is to be held in Halifax, June 24th, 25th and 26th. Many ideas and suggestions were revealed, which will be reflected in what is expected to be something new and different in an Annual C. & M. Conference.

Mr. Madge helped the Halifax members usher in a new season of activity by addressing the opening meeting of the Chapter. It was indeed an auspicious beginning of a very excellent programme which has been planned for the Chapter in the 1952-53 season. The round of activity in Nova Scotia

was concluded with a most interesting meeting of the Nova Scotia Council.

There was a one-day stop in Charlottetown, P.E.I., when the President was greeted by the members of the P.E.I. Society at a dinner in the Charlottetown Hotel. Here, as in Newfoundland, the time was given to a discussion of Society affairs and problems of mutual interest. In informal discussion, as in his more formal addresses, Mr. Madge revealed a wealth of practical knowledge covering a broad range of business problems. Proceeding on to New Brunswick, an enthusiastic reception awaited the President at Chapter meetings in Moncton and St. John. A highlight of these meetings was the preparation of plans for promoting student registrations which have since materialized in substantial numbers.

With the meeting in St. John, the tour of the Martime Provinces was brought to a highly successful conclusion.

R.I.A. EVENING LECTURE CLASSES OFFERED IN SYDNEY, N.S.

The Society of Industrial & Cost Accountants of Nova Scotia, in co-operation with St. Xavier Junior College, offered this year, for the first time, Evening Lecture Classes in Accounting I and Business Mathematics. The response to the announcement was nothing short of spectacular, with over sixty registrations in each class.

Personals

Foster H. Doyle, R.I.A., has been appointed General Manager of the Maritime Telegraph and Telephone Company. A Charter member of the Nova Scotia Society and a member of the Provincial Council, Mr. Doyle was formerly Comptroller of the Company.

Clyde S. Mosher, R.I.A., became Comptroller of Maritime Telegraph and Telephone Company, filling the position vacated by Mr. Doyle. Mr. Mosher is also a Charter Member of the Nova Scotia Society, as was his predecessor.

Norman Terry, C.G.A., R.I.A., a Past President of the Canadian Society, was elected President of Canadian Sumner Iron Works Limited. Mr. Terry has been an active member of the Society of Industrial and Cost Accountants of British Columbia since its inception, and was the first Provincial President of this Society.

New Members

HAMILTON CHAPTER

Anatol Alexander, The Westinghouse Supply Co.
Roger E. Andrews, Frid Construction Co.
George A. Ash, Stanley Works of Canada
Alphonse Bianco, 79 Edgemont St.
George Binnie, Wright Erickson, Lee & Co.
James Boles, Canadian Westinghouse Co. Ltd.
John Bremer, 255 Caroline St. South
Chester G. Capponi, Delta Drug Store
Peter J. Collins, Hamilton Cotton Co. Ltd.
Norbert Dalladas, Robertson-Irwin Ltd.
Charles E. Fallon, Income Tax Dept.
Geoffrey A. Flavell, Mercury Mills Ltd.
Russell R. Fletcher, Canadian Westinghouse Co. Ltd.
Ronald Floren, Steel Co. of Canada Ltd.
William H. Forgrave, Supertest Petroleum Corp.
Richard G. Galivan, Steel Co. of Canada Ltd.
John Griffey, J. Dickinson & Co. (Canada) Ltd.
Douglas W. Hawes, National Steel Car Corp.
Alexander Hosie, Canadian Westinghouse Co. Ltd.
David R. Jennings, Canadian Westinghouse Co. Ltd.
James N. Jenson, Canadian Westinghouse Co. Ltd.
John Kondor, M. I. Long & Co.
Cyril D. MacDonald, British American Oil Co. Ltd., Clarkson, Ont.
Anthony W. M. Maidstone, Steel Co. of Canada Ltd.
Gerard Matthews, Currie Products Ltd.
Robert N. Mattingly, Hussmann Refrigerator Co. Ltd., Brantford, Ont.
C. R. (Bill) McAlpine, Canadian Westinghouse Co. Ltd.
Lloyd G. McCague, Canadian Westinghouse Co. Ltd.
Kenneth J. McKay, Canadian Order of Forresters, Brantford, Ont.
Miss Margaret A. McKelvy, Steel Company of Canada Ltd.
Herman Mielens, Moore-Thompson-Clinger Ltd.
Miss Phyllis M. Morrow, Income Tax Dept.
Norman A. Mumberson, Bank of Montreal
Donald A. Norton, Vi-Tone Products Ltd.
Jack Oinas, Frost Steel & Wire Co. Ltd.
Miss Phyllis A. Panek, Canadian Porcelain Co. Ltd.
Bruce W. Patterson, Hamilton Beach School
Geoffrey S. Peach, Northern Electric Co. Ltd.
Robert Peters, Canadian Westinghouse Co. Ltd.
Miss Mary Jane Regan, McMaster University
H. Robert Robertson, Robertson-Irwin Ltd.
Graham E. M. Shepherd, Appleford Paper Products
Iyo Sillaste, 27 Duke St., Hamilton, Ont.
R. Alan Smith, 12 Richmond St., Hamilton, Ont.
Gerhard Spiehler, Duke's Dry Goods

William A. Stellings, Wright, Erickson, Lee & Co.
Gordon A. Stewart, Langs Frozen Foods Ltd.
Ronald Thompson, Fuller Brush Co. Ltd.
Robert B. Tuttle, Steel Co. of Canada Ltd.
James C. Wardrop, Wales-Strippit of Canada
Samuel L. Zimmerman, Fuller Brush Co. Ltd.
Miss Dorothy V. Price, Clarkson Gordon & Co.
Raymond L. Mostacci, Sovereign Potters Ltd.

KINGSTON CHAPTER

Jack Goodrich, Chown Limited, Wholesalers

KITCHENER CHAPTER

John E. Howard, 25 Kent St., Guelph, Ont.
Howard E. Johannes, John Forsyth Limited, Kitchener, Ont.
Gino Peter Lago, Biltmore Hats Ltd., Guelph, Ont.
Robert P. Treleaven, Armco Drainage & Metal Products of Canada Ltd., Guelph, Ont.
George A. Whitfield, Galt Metal Industries, Galt, Ont.

LONDON CHAPTER

L. Bennett, Silverwood Dairies, Limited
L. Clements, Silverwood Dairies Limited

NIAGARA CHAPTER

Walter Halaiko, Atlas Steels Ltd., Welland, Ont.
Clarence Sainsbury, The Yale & Towne Manufacturing Co., St. Catharines, Ont.

OTTAWA CHAPTER

John W. Binks, R. L. Crain Ltd.
Peter B. Smith, R. L. Crain Ltd.

PETERBOROUGH CHAPTER

Charles J. Helmes, The Quaker Oats Co. of Canada Ltd.

TORONTO CHAPTER

William M. Anderson, Shell Oil Company of Canada Ltd.
R. Dennis Barge, Goodyear Tire & Rubber Co. Ltd.
Norman Abramovitz, Levy Auto Parts
Frank P. J. Baron, 1668 St. Clair Ave. W., Toronto, Ont.
Lewis G. Campbell, Dun & Bradstreet
Lloyd V. Cole, Loblaw Groceries Co. Ltd.
Alexander K. Davidson, Plate & Structural Steel Ltd.
Martin A. Davidson, Remington Rand Ltd.
Maurice P. Dean, Canadian Rogers Eastern Ltd.
George A. Enborg, Canadian Bearings Ltd.
Ralph G. Falle, H.E.P.C.
Clifford N. W. Hall, Capital Television Ltd.
Sydney H. Hart, Sangamo Company Ltd.
Lloyd E. Ingalls, Frigidaire Products of Canada Ltd.
T. Matt Jordan, Central Mortgage & Housing Corp.
John R. Kerfoot, Canadian Kodak Co. Ltd.
S. Jack Kitagawa, Graphic Card Co.

Alexander D. Kolybaba, Radio Valve Co. of Canada
Bruce S. Lake, Canadian General Electric Co. Ltd.
William G. McAdam, Sangamo Company Ltd.
Robert M. McClelland, Liquor Control Board of Ontario
Harold J. McDonnell, Stran Steel of Canada Ltd.
Thomas F. H. Meakin, Maple Leaf Milling Co.
Reginald P. Morgan, Champion Crest Co.
Gordon H. Near, Silverwood Dairies Ltd.
Derek R. Patterson, Shell Oil Co. of Canada Ltd.
Gordon B. Prince, John T. Hepburn Ltd.
Astrid Puss, Maple Leaf Feather & Down Co. Ltd.
Michael Repchik, George Weston Ltd.
Allan H. Richardson, 177 Front St. E., Toronto, Ont.
Harold V. Rogers, Canadian General Electric Co. Ltd.
Karlis Sarkans, Eastern Steel Products
Walter Smijak, Canadian Wire & Cable Co.
H. Lorne Solman, Jr., Massey-Harris Co. Ltd.
Gordon H. Spry, Harvey Spry & Associates Ltd.
Bart Sullivan, Rogers Majestic
Ladislaus Sybal, Canadian General Electric Co. Ltd.
Claire G. Tomlinson, Burndy Canada Ltd.
Roy J. Wilkinson, Trailmobile Canada Ltd.

MONTREAL CHAPTER

Robert W. Blakey, Price Waterhouse & Co.
Lionel Denis, Dominion Tar & Chemical Co. Ltd.
Jean Charles Dionne, National Sea Products Ltd.
J. C. Eobichaud, Sally Shops Limited
George E. Gallagher, Canada & Dominion Sugar Co. Ltd.
L. W. Griffiths, Imperial Tobacco Co. Ltd.
Russell A. Griffiths, Northern Electric Co. Ltd.
Georges Henri Hotte, Warden King Limited
George Kushnir, McGill University
L. Lazar, S. A. Doubilet & Co.
James W. Leslie, The Montreal Standard Publishing Co. Ltd.
M. Levine, S. S. Mathews & Co.
A. J. MacLachlan, Price Waterhouse & Co.
Miss Julienne Malenfant, Bosco & Bower Limited
Jean Louis Martel, A. Kastner, C.A.
John G. Mulligan, Imperial Oil Ltd.
Alan Paterson, Price Waterhouse & Co.
Alan C. Ross, W. R. Cuthbert & Co. Ltd.
Charles Vacalopoulos, Canadair Ltd.
Marcel Vaillancourt, Canadian Arsenals Limited

QUEBEC CHAPTER

Clement Fortin, L'Office de l'Electricification Rurale

ST. MAURICE VALLEY CHAPTER

Roger St. Onge, Canadian Industries Limited

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Chapter Notes

NIAGARA CHAPTER

The Niagara Chapter of the Society of Industrial and Cost Accountants held their first meeting of the season at the Barclay Hotel on September 24th. The meeting was designated as "Top Management Night" and speakers of the evening were R. V. McLaughlin, R.I.A., works manager of the Massey-Harris Co. Ltd., Toronto, and J. R. Goodwillie, assistant works manager of the company.

They addressed the 80 members and guests on an incentive bonus plan for factory supervisors which proved interesting to all present. In the talk they outlined the plan currently in operation at Massey-Harris and urged anyone who might be interested in starting such a plan to inaugurate a scheme of their own rather than copy from some other concern.

Preceding the address Gordon Elliott, of St. Catharines, secretary of the Niagara Chapter, presented a scholarship award and a silver medal to W. C. Hesler, of Port Colborne, who earned top honors in examinations in Industrial Legislation held last spring. Others who had successfully passed their exams were recognized last night by Mr. Elliott.

Chairman S. G. Cherrie, of Thorold, urged students interested in working towards their R.I.A. degree to participate in the course being offered by the Society through the correspondence extension course of the University of Toronto. H. A. Pakrul, of Welland, was Student Director Mr. Cherrie stated, and he and his committee would be happy to aid any interested.

A report on the 31st Annual Cost and Management Conference held last June at Vancouver was tendered by John McLaren, of St. Catharines, who was delegated to represent the Niagara chapter at the Dominion convention.

The chairman, Mr. Cherrie, expressed his pleasure at the large number who were in attendance and invited guests present to attend other meetings during the season. Mr. Cherrie commented upon the excellent programme produced this year and noted the number of interesting speakers which comprised the season's agenda.

OTTAWA CHAPTER

September Meeting

"Costing for Management" was the subject chosen by W. H. Flynn, Associate Financial Advisor to the Department of Defense Production, in an address at the opening fall dinner meeting on September 18. He said that in preparing costs for management it is high time we examined our methods to see if they have kept pace with the great forward strides taken in the scientific and technological development in the industries we are costing.

One of the big difficulties facing the cost accountant to-day, he continued, is the lack of solidified opinion as to correct treatment of depreciating fixed assets during the inflationary period, methods of pricing inventories and of applying overhead costs. After a discussion period, P. Clarke expressed the thanks of the meeting to the speaker, who had been introduction by W. J. McDougall.

The meeting was opened by the retiring chairman, C. F. Hembery, who was presented with a matched pen and pencil set by the incoming chairman, A. A. Sterns. Members of the incoming executive were then introduced.

W. J. McDougall announced that Carleton College was now offering all but one of the subjects required for registered membership in the Society, and he urged all members to encourage junior men in their organizations to register for the course either through Carleton lectures or by correspondence.

A highlight of the meeting was the presentation to the chapter of the Fernie Trophy for 100 per cent. increase in membership during the past year. The presentation was made by C. B. Watt, member of the Dominion Board of Directors.

October Meeting

With interest in municipal affairs at its height prior to nomination and election time, the Ottawa Chapter geared its programme to the times and had as their speaker Mr. P. E. Senecal, Deputy Director of Finance, City of Montreal, who spoke on the subject "Municipal Costing Problems." Mr. Senecal, who is a committee member of the Municipal Finance Officers' Association of U.S.A. and Canada working on "Municipal Cost and Budget Procedure," said that cost accounting is forming a larger part of municipal accounting each year, but that municipalities generally did not yet have their problems streamlined in such a way that cost accounting was the answer.

The meeting was attended by members of the city's Board of Control and Department of Finance who expressed their keen interest in the address and took part in the discussion period which followed. The speaker was introduced by C. A. Miller, and the thanks of the meeting was expressed by W. Cleary. The meeting was in charge of the chapter chairman, A. A. Sterns.

The meeting was the most largely attended of the season, with 101 dinner tickets sold.

REGINA - MOOSE JAW CHAPTER

The Regina-Moose Jaw Chapter of the Society of Industrial and Cost Accountants of Saskatchewan met at a dinner meeting in the Blue Room of the Legion Hall, Regina, Thursday, October 2nd. Mr. W. T. Read was guest speaker for the evening and he spoke on the national convention that was held in Vancouver, as well as the aims, objectives and opportunities of our Society. In attendance were fourteen student members which indicates a very fine student interest in our Society.

J. P. Golds presided in the absence of our Chapter President, Mr. L. A. Robertson. Mr. Golds reported that Moose Jaw had not been too successful in obtaining sufficient students to conduct first year classes for the students. However, he advised that five students would be continuing in the second year classes. G. C. Kennedy reported excellent results as to enrolment for classes in Regina. A total of forty-eight students had enrolled for classes which cover first and second year subjects. The meeting finished by the showing of two very fine films through the courtesy of Imperial Oil Limited.

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(Chapter Notes Continued)

VANCOUVER CHAPTER

The Vancouver Chapter's first meeting was held on September 11th and was highly successful. There were sixty-one in attendance, which is about fifty per cent. better than most of our meetings last season.

Mr. T. M. Sherwood, General Service Supervisor of the B.C. Telephone Company, was the speaker, and he gave an extremely interesting lecture on Methods or "The Shortest Way to Short Cuts." Tom not only gave a good lecture with lots of meat in it, but he interspersed it with enough humour to keep everybody on their toes.

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C & M ROUND-UP

By N. R. BARFOOT, R.I.A.

NEW CONSUMER PRICE INDEX

The official new Consumer Price Index may appear in October but the old cost of living index will probably carry on into '53.

Important points about the new Index are:—

Addition of 65 new items; total from 160 to 225.

The course of the new index will very nearly parallel the old. In such case revision of wage contracts containing escalator clauses on Cost of Living will be simple.

Parallel indices will probably be issued for a few months to ease the changeover.

Variations between the two will result in the reweighting of items.

For example, in the present index food and shelter were in the ratio of 31 to 19, in the new index the ratio will be 32 to 15.

In the shelter index, too, home ownership is now included as well as rentals. Research has indicated that rentals have a tendency to lag behind costs during periods of rising prices.

Children's clothing and fuel oil are included in the new index, to give a broader base to the whole picture.

EXPANDING COMMUNITIES

A great number of Canadian towns and cities are faced with unprecedented expansion of facilities and services as a result of industrial growth. Sharp increases in taxes, 100 to 300% jumps, have tax payers up in arms and in addition bond houses are refusing to purchase municipal bonds due to shaky corporation financial set ups. Several reasons are apparent such as:—

Outdated municipal administration set ups.

Lack of Master Plans to cover zoning, financial expectations and capabilities.

Forty to fifty year old assessment plans, with wide qualities. For example, in some communities industrial assessment is up 20%, professional and commercial up 136%, farm properties up 78% and residential up 266%.

Most communities would benefit greatly by having a complete reassessment done by professionals who have expert knowledge on up to date methods and are under no local interest or political influence in conducting their survey. In such a way a sound plan may be introduced and no one locally is directly responsible for the details. Taxes must rise in parallel to the modern conception of what city services should be but the load must be distributed equitably. This will accomplish individual satisfaction and lay the base for sound urban financing.

OFFICE MACHINERY

1952 saw one of the biggest advances towards the push button office, since the war end. Some of the recent innovations and mechanical aids are:—

Small inexpensive 6-12 station intercoms.

Improved accounting machines, one of which does four distinct accounting operations on the one machine.

Many new distating machines using both tape and unbreakable record recordings are available.

Pocket size calculators weighing 8 ounces are of use to travelling salesmen and accountants.

Electronic application to tabulating equipment has expanded the use of this type of machine.

BUSINESS FAILURES

The total number of business failures in 1951 in Canada was 797. A breakdown of reasons shows:—

359 failures due to lack of managerial experience.

156 failures due to lack of experience in the line.

149 failures due to incompetence.

53 failures due to unbalanced experience in sales, finance, purchasing and production.

717 of the above firms failed through the following specific conditions:

Inadequate Sales	304
Over Heavy Operating Expenses	87
Receivables Difficulties	120
Inventory	68
Excessive Fixed Assets	73
Poor Location	27
Competitive Weakness	102
Others	79

The failure rate has been on the upswing but is well below the pre-war rate. In 1940 there were 64 failures for every 10,000 concerns and in 1951, 36.

GOVERNMENT ASSISTANCE TO DEFENSE PLANTS

What form this should take is causing a good deal of thought. Two plans are:—

Capital Assistance for machinery equipment and plant by Ottawa.

Accelerated Depreciation on company owned plant and equipment.

A tightening on capital assistance is indicated. Industry in general will find that it is expected to provide its own capital.

The governmental reasoning will probably be based along the line of the long term values to the industry itself of the capital required, rather than the importance of the product to the defence program.

The alternative, of course, is an accelerated capital cost allowance for income tax purposes.

The present thinking has emerged from two factors:—

The government is not going to have a fire sale disposal of its defense capital assets at the end of the programme. It will therefore be extremely

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(C & M Round-Up Continued)

cautious with capital assistance where no future is assured for the industry receiving help.

The defence programme is emerging with physical assets and industrial know how which have long term commercial value.

The capital assistance now given is making a contribution to the economic future of the country and any assistance of this nature given by Ottawa no doubt must pass the test of future worth to the national industrial effort.

FIRE INSURANCE

Fire losses in 1951 amounted to 76 millions and indications for 1952 are that this total will be considerably exceeded. It is quite apparent that over and above good fire protection plant programmes there should be adequate Insurance coverage.

The main reasons for under insurance are carelessness, ignorance, stinginess and lack of money.

Too many Industrialists rely on their insurance agent which may not be wise. Replacement costs of plant and equipment have in most cases completely obsoleted present insurance coverage plans.

A good many owners are operating under the co-insurance clause. A co-insurance clause requires the property owner to keep his insurance up to a certain percentage of the actual value, a usual percentage is 80%. The premium is lower for this sort of coverage which partially offsets the situation on partial losses where a high coverage plan and low coverage plan on different plants might get exactly the same returns.

Use and Occupancy Insurance which makes good losses on earnings due to fires which retard or stop manufacturing are coming into wide use.

CURRENT ARTICLES OF INTEREST TO INDUSTRIAL ACCOUNTANTS

ACCOUNTANTS

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The Economist's Role in the Development of Canada's Natural Resources

By JOHN A. FULLER, B.A., R.I.A.
President, Shawinigan Water and Power Co.

The decisions to invest many millions of dollars in the development of Canada's natural resources are based upon reports produced by the combined efforts of many specialists. Four of Canada's major projects have been chosen in this paper to illustrate how the engineer, economist, and accountant work together to determine the economics of the projects undertaken.

When I started to think some time ago about the subject of my talk to you to-night, I didn't know what title I would give it. For lack of a better one, I decided on "The Economist's Role In the Development of Canada's Natural Resources". It is certainly a mouth-filling title, and as to the subject, I must say I had very little realization of how formidable a task I had on my hands. In fact, I am now quite convinced that it would form a good subject for a Ph.D. thesis. Not being an economist myself, I really cannot do justice to it, the only saving grace being that it would be impossible to do so in any event in a short address of this kind. Perhaps my only qualification to speak on the subject is that I think I have had enough experience to realize fully that economic research is an essential prerequisite to the sound development of our country's natural resources.

The Engineer — Economist — Accountant

Let me say that I use the word "economist" in a broad sense, and before proceeding further, I think I should define what I mean by its use in relation to this particular subject. To-day, to produce any sort of a report on the economics of the many large projects which are being undertaken in this country, it is necessary to draw on the experience and brains of many different kinds of specialists. Perhaps we can boil the number down to three for the purpose I have in mind.

First, there must be a project engineer with a broad knowledge of the particular process involved. He will, of course, have to have many helpers because most of these large projects to-day combine chemical, metallurgical and other

engineering features, and no one man could ever possess the necessary knowledge in all of these specialized fields. Naturally, the engineer's first job is to do the purely technical work of design, but it will also be his responsibility to estimate the capital and production costs of whatever the project may be. Then there must be an economist (and here I use the word in its usual connotation) to consider all the economic factors in the manufacture of the product and its delivery to the ultimate market. These factors to-day are extremely complex. So far as manufacturing is concerned, the economist must take into account not only whether adequate labour is available but also the labour atmosphere at the site of the project, and wage rates are only one of the factors in this picture of a proper labour atmosphere. The economist must also consider the question of transportation on both incoming raw materials and outgoing finished product. With the increase in freight rates which has occurred since the end of the war, this is becoming a more and more important factor.

Another matter which our economist must consider is that of tariffs, especially into the United States, which, at any rate for processed products, are in general much higher than tariffs from the United States into Canada. The marketing of aluminum and chemicals, for example is being hampered by U.S. duties whereas many chemicals are coming into Canada from the United States duty-free or at a nominal rate of duty only. The economist must take all these factors into account in order to arrive at how much of the proposed product can be sold and what the net sales return will be.

To assist the engineer and the economist in making the necessary studies and compiling the vast array of figures which result from these studies, a third class of specialist is needed, namely, an accountant — and this job is particularly the field of the Cost Accountant. His is the special job of putting the figures together in as concise and simple a form as possible so that decisions by Management are facilitated. I am, of course, not going to attempt any discussion on the form that these reports should take, but I will say that what Management must know, in the final analysis, is the estimated return on the investment and the background of facts and figures on which that return is based, so that some judgment can be passed on whether or not the return figure is reasonably assured. My economist, then, is an engineer-economist-accountant.

Iron Ore Development

To-day, in Canada, we are seeing developments going forward in many different industrial fields, some of them extremely large, but along with them many small diversified industries are being established. With the time available and considering the subject I have in mind, I can only discuss a few of the large industries which stem from Canada's natural resources, such as iron ore, oil, forest products, and hydro-electric power. The big developments in iron ore and oil have only taken place since the war; our forest resources and hydro-electric power in contrast have been utilized for a good many years, but such a great expansion in their use is now going on that I think it worth while to deal briefly with certain developments in these fields.

All of the projects about which I wish to speak are in course of development. The decisions to proceed with them have therefore already been made and it is possible to give some indication as to the economic factors which brought about these decisions. I am not going to try, however, to give you detailed chapter and verse of the various figures and facts surrounding them. In fact, I haven't sufficient knowledge to do so and my purpose, as I have said, is merely to indicate the importance of the jobs of the engineer, the economist and the accountant working together to produce reports on which are based decisions to invest many millions of dollars.

Fortunately, quite a lot of data is available which throws some light on this subject, and it is interesting to note that this is because some of the projects were entirely new ventures and not going concerns; therefore, it was necessary to tell the prospective investor a great deal more about the venture than in the case of an established business with a record of earnings.

Because we are located in the East, I am going to start here and work our way westward.

We all know something about the Ungava iron deposits. In fact, they were known to exist many long years ago, but nothing was done about them because of the huge cost of getting the ore to market and the still plentiful supply of Mesabi ore. World War II changed all that. Throughout its duration and ever since, Mesabi ore was chewed up at such a terrific rate that Ungava ore became worthy of serious consideration.

(Continued on Page 368)

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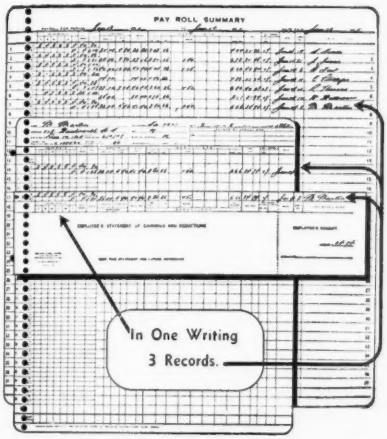

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First, it was necessary to determine that there were adequate ore reserves to warrant the huge cost of developing the ore bodies and building the necessary transportation facilities. This phase of the matter was entirely technical and suffice to say, as you all know, geologists have proven the Ungava deposits to be amongst the world's greatest. What next? This ore had to be delivered at steel-making centres at a price competitive with that from other sources. So the engineer went to work. What was the most suitable and economic type of equipment to get that ore out of the ground on a large scale and how much would this cost; how much would it cost to build a 350-mile railway from Knob Lake to Seven Islands; what would it cost to develop the port facilities there? The economist then came into the picture. Where was the ore going to be sold — Atlantic ports or Great Lake ports? What would be the cost of transportation to these ports? Should ships to carry the ore be bought or chartered from other owners? All these are only indications of the many problems involved. The Cost Accountant, too, had a job. Based on the data provided to him, he had to prepare a report to show that the net sales return was adequate to pay all operating costs and assure a return which would warrant the investment. Let me give you a few facts and figures on this tremendous new development. Based on 10 million tons annual production, the estimated mining cost is $1.53 per ton, but the estimated cost of ore delivered at Cleveland is $7.22 per ton. Transportation cost from mines to Seven Islands is 87c, and from there to Cleveland, $2.21. In other words, the total transportation cost is more than double the mining cost. This, I think, illustrates very well the point I referred to a while ago, namely, that transportation cost is to-day a very large element in determining the net return. The price to be received for the ore at Cleveland was estimated at $8.49, which would leave a net profit of $1.27 per ton. The huge size of the venture is indicated by the capitalization of the Iron Ore Company of Canada, which was formed to carry out the project. Bonds and debentures total $140 million, and capital stock, $60 million. On sales of 10 million tons and on the basis of 1950 prices, the return on capital stock would be about 21%. That sounds like a very nice return, but think of the risks involved. It is a pretty sure bet that capital costs have exceeded original estimates (they all have over the past three or four years), and it is also quite likely that operating costs will be higher than the estimates

made in 1950, again due to inflation. Another interesting consideration is that if the volume of 10 million tons is not attained, costs will be considerably higher. For example, the net profit at a volume of 5 million tons was estimated at only 48c per share, which would mean a return on the capital stock of 4% instead of the 21% figure on the volume of 10 million tons. On the other hand, it is reasonable to believe that higher costs will be offset at least to some extent by a higher selling price to the consumer.

The successful development of this project will naturally do much for the economy of Canada. Initially, we will only be selling raw material to the United States, but eventually it is quite likely that steel-making industry will develop along the shores of the St. Lawrence River, below Montreal. I might add that the capital money which is going into this project has already been quite a factor in improving our Canadian dollar position, and the U.S. dollars which will be received from the sale of ore in that market will do a great deal to maintain the strength of the Canadian dollar. (A good many of us will say that the Canadian dollar is too darn strong right now.)

Hydro-Electric Power Development

The second natural resource of Canada, I would like to say a few words about, is hydro-electric power, and to illustrate its utilization in industry I am going to take for my example the aluminum industry, or more specifically, the Aluminum Company of Canada. ALCAN to-day is the single largest producer of aluminum in the world. In 1928 its capacity was 45,000 tons; to-day, it is some 500,000 tons — a tremendous expansion, I think you will all agree. How was ALCAN able to expand so greatly to meet the growing demand for its product? The answer lies in the cheap power which was available in the Saguenay Area. To-day, it has there an installed capacity of nearly 2,600,000 h.p., of which about 1,800,000 h.p. can be considered firm power year in and year out. This amount of power, while adequate to support the productive capacity of 500,000 tons of aluminum per year, is no longer capable of further expansion; therefore ALCAN, if it was to continue its growth, had to find new sources of cheap hydro-electric power somewhere in the world and at a location where the labour and political atmospheres were favourable; also, where other raw materials could be brought at a reasonable transportation cost.

As you all know, they chose British Columbia, and I don't need to describe the project to this audience. It is interesting to note, however, that the 2 million h.p. capacity to be eventually installed to produce about 450,000 tons of aluminum will be a somewhat smaller project, in terms of production of aluminum, than at Arvida.

Why did ALCAN choose British Columbia? First of all, I assume that they considered the labour situation and political atmosphere more stable than at other possible locations elsewhere in the world. The transportation situation was favourable because either bauxite or alumina can be brought from British Guiana or Jamaica by water transport to Kitimat and, of course, aluminum ingot can also be exported by water. To save additional transportation costs, however, I understand that ALCAN intends to refine bauxite to alumina in Jamaica, which will cut in half the volume of raw material to be carried to the manufacturing plant.

The next most important cost is power. It takes 10 kwh. to produce 1 lb. of aluminum. The cost of power at Arvida is somewhere in the order of three-quarters of a mill, or three-quarters of a cent per pound of aluminum. Just suppose power cost was 5 mills, or a cost of 5c per pound of aluminum. The spread between these two figures indicates how important cheap power is in the manufacture of this product. Aluminum manufacturers in the United States are in no case getting power at lower than 2 mills, and the probable lowest cost from new facilities in the United States to-day is in the order of 4 mills. This, I think, gives sufficient data to indicate that ALCAN is to-day the cheapest producer of aluminum in the world. Of course, Kitimat energy will be much more expensive than at Arvida because capital costs of building a hydro plant to-day are many times the average cost of the power plants installed in the Saguenay area. However, it is estimated that power cost at Kitimat will be about 1.5 mills, and this will still be about half the power cost of the next lowest cost producer. I have seen a report which indicated that ALCAN's factory cost of aluminum in 1949 was 7.7c per pound against Aluminum Company of America's cost of 10.5c. Costs of the other U.S. makers are quite a bit higher, most of the difference being occasioned by higher power costs. The story of aluminum production in Canada is certainly the outstanding example of the development of its hydro-electric resources. Aluminum producers have to be

pioneers of these resources, and they have to keep on pioneering because other industries which need large quantities of power but which can afford to pay more for it, move in on them. As a matter of public policy, ALCAN, or for that matter any other aluminum producer utilizing a country's natural resources, cannot refuse to sell power to new industries which will diversify the industrial base of any area in which they operate.

Oil Development

The next great industry contributing to the development of Canada's natural resources is, by all odds, its most spectacular and probably also its most speculative. The great discovery of oil in Leduc and further discoveries in Alberta have undoubtedly done more to alter the economy of Canada than any other development perhaps in our whole history. Oil in the ground has a value no matter what. It is liquid gold. Nonetheless, its value can only be realized when delivered to consuming centres, and this is an especially important factor in Canada. There are probably three phases in the development of any new source of oil. First, of course, there must be the discovery and development of wells; second is the establishment of refineries to provide the petroleum requirements of areas in reasonably close proximity to the oil field; third is the transportation to more distant markets, which is a very difficult and expensive problem in the case of the Alberta fields because very long pipe lines are required to the major consuming centres. We are presently, at least in part, in the third phase of this development. Certain figures contained in a government report issued in March 1952, I think will be of considerable interest to you. In 1945, the petroleum requirements of the domestic market were 197,000 barrels per day, of which we produced 23,000 barrels or only 12% In 1952, our estimated requirements are 480,000 barrels (this growth in our petroleum requirements alone indicates the tremendous economic development which has taken place in Canada over this seven-year period) and production is estimated to be 150,000 barrels or 31% of our requirements. At the present time, if we had refinery and transportation capacity we could take care of half our needs. The problem, therefore, is one of pipe lines and refineries. Here, however, is where economics enters into the picture, and transportation cost is again the "bête noire". Alberta oil must compete with oil from Venezuela, the Middle East and the United States, and from

these locations it can now be moved quite readily to the major consuming centres by tanker and pipe line. U.S. tariffs are also a consideration. A natural market for Alberta oil exists in the Pacific Northwest of the United States and areas directly east of that region, but there is a tariff imposed against our oil of 10½c per barrel. To-day, there are big developments going on in the Williston field of North Dakota and Eastern Montana, and it may well be that oil from this area will make it uneconomic for Alberta to deliver oil to its natural markets in the United States.

What the producer in Alberta is interested in is, of course, the highest well-head return. The report which I have just referred to provides figures which show that Alberta oil would net $2.06 per barrel at well-head from oil delivered to Montreal as against $2.92 from oil delivered to Vancouver. Naturally, therefore, Alberta oil will move to the West Coast before it moves very far east of, let us say, Sarnia. How far east is, I am sure, a question which is engaging the thought and intensive work of many engineers, economists and accountants. Where should the pipe lines be built? Where should the refineries be erected to best market this great new natural resource? Neither pipe lines nor refineries are cheap. A huge investment is necessary and must be justified on the basis of cost not only to produce the crude oil, but to carry it to market and refine it to usable products.

Forest Products Development

The fourth and last new venture which I would like to discuss is based on Canada's forest resources. For many years our large forested areas have provided the major raw material of our most important industry, namely, pulp and paper, and in particular, newsprint. Quebec, Ontario, the Maritime Provinces and British Columbia all have large mills manufacturing various forms of pulp and paper which have been profitable at times, but as most of us know, very unprofitable during the depression years in the 1930's. As a result of that very bad experience and due also to increased capital cost of plant and higher manufacturing costs, new projects have been limited, except for the West Coast where wood costs at the mill still remain relatively favourable. A new development there of special interest occurred in 1948, when Celanese Corporation of America decided to erect a mill for the production of high alpha cellulose

pulp, which can and is generally being substituted for cotton linters in the manufacture of cellulose acetate. The motives of that company, I am sure, were to avoid the vagaries of the cotton linters market and, at the same time, to assure to itself a supply of its major raw material without having to rely on other producers. Canada was the place it chose, again, I am sure, partly because the labour and political atmospheres were better than elsewhere, and British Columbia specifically because of its adequate forests which, due to climatic conditions, can be reforested more readily than other areas. The site at Prince Rupert is favourable from a transportation point of view because pulp can be carried for the greater part of the distance by boat to the mills of the Celanese Company in the Eastern United States. A very interesting arrangement was worked out between Columbia Cellulose, producer of the pulp, and its parent company —American Celanese. Estimated costs per ton of pulp were $103.40. Celanese undertook to purchase the output at not less than $132 per ton, f.o.b. plant, or the market price, if higher, delivered to Celanese at its plants in the United States. The market price at that time was $182 per ton, and on this basis, annual profits were estimated at nearly $4 million per year before bond interest and taxes, or about $1,600,000 after these items of expense. Celanese undertook to invest $12,500,000 in Preferred and Common stocks of Columbia Cellulose so that its return, according to the above estimates, would be in the order of 13%. Senior securities of Columbia Cellulose were sold to the Canadian public in amount of $20 million, and of course prospective investors in these securities had to be satisfied that the return on their investment was safe and assured. I don't know exactly who figured out all the details involved in such a complicated project, but again it is a fair assumption there were a good many engineers, economists and accountants who studied it before it was decided to go ahead. By way of parenthesis, I might say I have observed that the properties of Columbia Cellulose cost $40,500,000 at December 31st, 1951, against an originally estimated cost of $25,370,000, or an increase of $15 million, and this additional amount was invested by the parent company which now holds capital stocks having a paid-in value of $27,450,000. Believe me, the entrepreneur sometimes takes it in the neck.

Before long there was another development. The Celanese Company decided to take advantage of another segment of

Canada's natural resources, namely, chemicals ex-petroleum in Alberta, and to use these chemicals to process its pulp into cellulose acetate in Canada. Canadian Chemical Company was formed, and in this case, American Celanese — the parent company, undertook to buy cellulose acetate and acetate yarn and staple fibre in quantities and at prices to cover costs, including financing charges. This plant will not come into operation until sometime in 1953, but it can be said that both the operations of Columbia Cellulose and Canadian Chemical represent important developments in the utilization of Canada's natural resources.

Conclusion

What does all this add up to? In the three specific situations I have dealt with there is involved an eventual capital investment of some 800 millions of dollars. Estimated capital expenditures in the development, transportation, and refining of oil for the period 1946-52 amounted to some $750 million, with many more millions of dollars in course of being spent. Here, then, in these limited fields there is represented a total capital investment of 1 billion 550 million dollars, and obviously it is only a fraction of the total investment which is going into the expansion of existing manufacturing plants and the establishment of new industries since the end of the war. In fact, estimated new capital formation for 1952 is over 5 billion dollars.

The engineers, economists and accountants, in their reports, have convinced Management that prospective profits have warranted the risks involved, and real risks they are too. No matter how good things look on paper, it is rare they work out just that way in practice. We have been living in an inflationary period ever since the war, and I not only surmise, but I know that the capital costs of these projects are going to be well in excess of original estimates. That factor alone lowers the originally estimated return on investment, but beyond that, operating costs have greatly increased. I mentioned earlier that if the Iron Ore Company of Canada was able to sell only 5 million tons of ore, the return would be in the order of 4%. How easily that return could be wiped out by higher operating costs than estimated! You have no doubt noted that Columbia Cellulose lost money in its first eight months of operation, although admittedly that was a starting-up period and troubles are

bound to be encountered in such a highly technical process. Nonetheless, all these projects are going ahead full steam because of the faith of investors everywhere that Canada's natural resources can be developed at a profit. And what profits the investor will, in much greater degree, profit Canada. The indirect benefits of all these new developments to the country's economy will be incalculable. Our population will grow. New secondary industries will be established, and we will have a large enough domestic market to reduce manufacturing cost of nearly all products.

I have one further thought to leave with you to-night. Can you imagine all this vast development taking place, except under the aegis of the free enterprise system? Government most certainly has no right to take the people's money for investment in enterprises having such elements of risk. It can only be accomplished successfully by the voluntary investment of capital by those who are willing to assume the risk for sake of adequate return or profit on that investment. European money, American money and Canadian money have joined together to make these projects possible, and it has done so because Canada is, they believe, a safe haven of the free enterprise system. Our country is practically the only major country in the world with a balanced budget. Our government is stable and favourable to the free enterprise system. Our people are relatively well educated and unlikely to fall for the false dogmas of communism or socialism. These factors, together with the great wealth of our natural resources, have brought about a terrific flood of money from outside sources. Some of this money will no doubt be lost in speculative ventures, as has always happened in boom times in the past, but over a period of time I feel sure that the outside investor will be well satisfied with his investment in Canada.

A great many of you here to-night have responsibilities as accountants and as managers, and as such, I am sure you are taking your part in many new developments in our economy. Based on your recommendations, investment of money has been made in these new developments, and in this way you and I and all the rest of us engaged in this type of work can take some pride in the feeling that we are contributing to the development of our country's natural resources.

The Accountant in Industry

By GEORGE MOLLER, D. Jur., C.A., R.I.A.

This paper was written on behalf of the Society of Industrial and Cost Accountants of Canada for presentation to the 6th International Accounting Congress held last June in London, England. The author traces the history of Industrial Accounting in Canada to its present role of management accounting and ventures a brief glimpse into its future.

Introduction

In presenting a paper on a broad subject as ours in addition to papers on the same subject prepared by authors in leading positions in accountancy in England, it seems advisable to establish proper demarcation lines in which to hold the subject which is only too inviting for a review rambling right over many adjacent fields.

The justification for this contribution will be sought in its particular emphasis on the description of the historical background, present position and foreseeable future of the Accountant in Industry in Canada and the neighbouring United States of America, i.e. the North American Continent.

In the "Accounting Terminology for Canadian Practice" prepared by the Committee on Accounting Terminology of the Dominion Association of Chartered Accountants, issued in 1938 we find "Accountant" described as "one skilled in Accountancy". "Accountancy" is defined as,

> "The science (or art, according to individual preference) of recording financial transactions of business or other organizations, preparing from such records statements showing the progress and standing as to worth of the business, analyzing such statements and drawing therefrom inferences or conclusions for the information of proprietors and management or others concerned, and determining costs. The term is also used to describe the Accountant's profession."

We may be permitted to substitute the word "industry" for the words "business or other organizations" in this definition and thus derive a description of our subject.

Historical Background

It is self-evident that commerce and finance existed and flourished centuries before industry, based chiefly on machinery, as we understand the term to-day, came into existence and prominence. This applies even to this young continent in its initial colonial farming and fishing era. It may be permissible to state that the use of accountancy for farming and fishing is certainly not older than the imposition of income tax which on this continent was a sequence to the First World War. The accountant in commerce and finance and his corollary the public accountant, concerned chiefly with clients engaged in trade, preceded the Accountant in Industry by generations.

The first organized body of accountants in Canada was the Dominion Association of Chartered Accountants, now known as the Canadian Institute of Chartered Accountants. The leading Accountants in Industry came therefore largely from the ranks of public accountants whose growing organizations had recognized and taken upon themselves the task of systematical education for the profession early in this century. There is no doubt that they were largely aided by the experiences of the parent organizations in England.

Cost Accounting

Accounting in Industry is largely interested in cost determination. It is therefore only natural that accountants in industry developed cost accounting as their special field. Cost Accountants started to organize on this continent about the end of the First World War. The National Association of Cost Accountants in the United States has grown to one of the most important accounting organizations in the world. Its publications, the N.A.C.A. Bulletin and the annual reproduction of the proceedings of the International Cost Conferences in book form, are highly important sources of cost information.

At the same time industrial accountants organized in Canada under the name of Canadian Society of Cost Accountants and Industrial Engineers, which was later changed to The Society of Industrial and Cost Accountants of Canada. Apart from its published literature, the outstanding contribution of this Society to the advancement of the Accountant in Industry, has been in the realm of education.

The Canadian Society, in co-operation with leading universities, has organized courses of study and provided for the

instruction of students in the field of industrial and cost accounting. Instruction is given through the medium of correspondence courses and evening lecture classes with nineteen universities participating. All instruction is based upon a standard syllabus, and nationwide uniform examinations are held annually. The Society is in each province, empowered by Government legislation to confer upon its qualifying members the right to use the designation R.I.A. (Registered Industrial and Cost Accountant). To qualify as a registered Member, it is necessary to complete the courses of study, pass the prescribed examinations, submit an acceptable Cost Accounting Thesis, and have a minimum of four years practical experience.

Present Role of Accountants in Industry

In defining the role of the Accountant in Industry we wish to lean on an article by Irving D. Daws "Duties and Responsibilities of the Accounting Executive".[1] According to Mr. Daws, the accounting executive should primarily take *responsibility* proven by his willingness to back his own knowledge and judgment by making decisions and choices on his own initiative instead of referring them to his superiors. His chief qualities should be *accuracy* and *reliability*. On the *information* produced by the accounting executive the President and Board of Directors must base their decisions. His knowledge of company conditions must be derived from daily contact with not only his own department or division but also with other executives, divisions and departments of his company. For this purpose the accounting executive usually has direct access to all the departments in plant and offices.

The Accounting Department is a service department and therefore cannot limit its activities to accounting and auditing functions but should at all times *on its own initiative* disseminate information to other departments which should aid these departments in their operations. This will often avoid the setting up of the statistical records and separate recording sections within operating divisions or departments, caused usually by the lack of information coming from the legitimate source, i.e. the Accounting Department. The Accounting Executive should be prepared at all times to assume special tasks like examinations and investigations for other departments thus proving his value as provider of all information which can be derived from records and figures or for which measurements can be set

[1] N.A.C.A. Bulletin, Volume XXIX, No. 12, February 15th, 1948.

up and explored. The chief executive accountant who in the United States and increasingly in Canada has the title of Comptroller (or Controller) should be the ideal co-ordinating link between the heads of the operating and sales and procurement divisions.

A properly organized Accounting Department should produce statements showing the results attributable to each department for which the department head is responsible. These reports are the basis for comparison between the efforts contributed by the various departments, but also disclose shortcomings often stemming from a lack of co-operation between the various departments. If the chief executive accountant can convince the heads of the departments of the immediate effect their co-operation or lack of co-operation will produce, he has fulfilled one of the main tasks of his position. The accountant in industry has also the permanent task of educating all members of the management team in its largest sense, i.e. from the president down to the last supervisor, foreman and lead hand in financial matters. Only if he succeeds in convincing every member of the organization of the necessity of accurate recording and can persuade them to contribute their share in becoming exponents of accounting in each individual work centre, section and department, can he hope to achieve the ultimate aim of accounting which is not only reporting of the past but also ascertaining the present and intelligently forecasting the future.

In an article "The Accountant's Place in Management", by Ralph C. Mark[2], the author, who is the Director of the Cost Analysis Section of the Comptroller's Staff of the General Motors Corporation, recalls the time when the accountant was considered as purely a bookkeeper and necessary evil whose duty was only to record the financial happenings. According to Mr. Mark, facts still have to be accurately recorded but the accountant has to be able to analyze those facts to determine their meaning. He must set standards and use them to appraise the present and *forecast the future.* He must be able to simplify his analyses and present them understandably. To quote from Mr. Mark's article "Accountant's Opportunity is unique in that he is in a position to help to interpret the results of the talent represented in management." Mr. Mark explores the areas of development and experimental work both current and long

[2]October 1948 Issue of Cost and Management.

range in which the *accountant and engineer are complementary* to each other in securing and transmitting information to top management for decision and action. In the field of procurement, the accountant must record the cost of material procured and *measure them* against the standards included in the price of the product. He should consider whether it would be better to manufacture certain parts than to purchase them on the outset.

In the area of personnel problems, the accountant must furnish management with the effect of increases in employees earnings and their effect on costs and prices. In an increasing manner or degree Retirement and Profit Sharing Plans become part of the industrial pattern on this continent. It is the Accountant's function to explore the possibilities of profit sharing programmes and to prepare and support the arguments which prove that an incentive participation, in the results of the company's operations, will produce increased efficiency and larger net profits after the participation, thereby steadily improving the standard of living through increased production of goods and services. This development is the only real bulwark against the totalitarian assault on a world which wishes to stay free.

From Bookkeeping to Interpreting and Forecasting

The change in the meaning of "Accounting" can easily be seen when one compares a definition of accounting as adapted from Reisch-Kreibigs standard book "Bilanz und Steuer" (Vienna, 1914). "Accounting means the total of all records which are intended to prove systematically the status and changes of the fortune of an enterprise as well as its success or failure," with the vivid description of Accounting given by Professor Carl T. Devine in his text book "Cost Accounting and Analysis", New York, 1950:

> "The bookkeeping and accounting routine consists of gathering the information from underlying documents, summary sheets, executive estimates, etc.; checking the accuracy of all calculations; sorting the relevant information either in intermediate records of original entry or directly to the final summary accounts (ledgers); posting the data to ledger sheets testing the accuracy of the ledgers (and Journals); adjusting the books for items which were neglected in detail during the

> period; preparing fundamental statements and schedules; closing the books; and to some extent, interpreting the accounting data. Just where the accounting work in a strict sense begins and where it ends leads to an interesting but fruitless discussion. Some amount of filling in business forms may if desired, be classified as accounting, and some analytical ability in the interpretation of statements is not too much to expect of the bookkeeper."

It can be easily seen from the comparison of these two definitions that the former entirely historical character of accounting has been improved by adding the *interpreting* phase. This, of course, is by far not enough. This writer thinks that it is fairly accurate to claim that accounting is, in the middle of the century, increasingly looking to the future instead of concerning itself with the past. No one can deny that budgeting and budgetary control have become common tools of executive accountants on this continent. In a recent article by J. W. Gladson, "The Accountant's Part in Creative Management"[3] the author condenses the questions which the accountant should be able to answer to the manager to the following four:

"1. How have we done up to now?
2. How are we doing at the present time?
3. How will we do in the future?
4. What will be the effect of doing so-and-so?"

The third and fourth questions indicate the new trend in Accountancy in Industry. According to Gladson, the accountant is in a splendid position to make an important contribution to management planning by using the tools he has at his disposition. His presentation may be in the form of detailed budgets of sales costs at different assumed levels of future activity. If the accountant cannot find a basis for a forecast, management has to work out the answer some other way.

The answer to the question "What will be the effect of doing so-and-so?" is one of the problems of management and often spells the difference between good and poor management. It is the accountant who will, in most cases, have to answer the question "How will this affect us?" The Accountant must develop the technique of calculating the isolated effect of major changes in the current business picture in order to be able to show management the current level of estimated profits with-

[3]N.A.C.A. Bulletin, Volume XXXIII, No. 1, September 1951.

out waiting for books to be closed. The same method of specific estimations is used in calculating the effect of proposed changes, new business, plant expansion, etc. When the accountant is constantly called upon to answer the fourth question quoted afore, he will be participating in management planning. The following is a quotation from the concluding paragraph of the quoted article:

> "As a rule, only the very highest levels of management are concerned with all phases of the business. Often only through the controller's or accountant's efforts can all such phases be brought together. The accountant's opportunities in this field are limited only by his imagination, his depth of purpose and his ability to work with other members of management.
>
> By constructive analysis and by co-operation with the segments of the business involved, the accountant or controller can help discover unfavourable spots in the picture and focus constructive suggestion and assistance upon them. The controller or accountant, if he is well qualified, is in one of the most fortunate positions to be able to guide and counsel business management in the major decisions which affect the financial welfare of his company."

The Anglo-American Council on Productivity, after the tour of the British Specialist Teams throughout the United States, made the following statement on *Management Accounting*, as it is practised here in their very interesting report[1]:

> "Management accountancy is the presentation of accounting information in such a way as to assist management in the creation of policy in the day-to-day operation of an undertaking. The technique of accountancy is of extreme importance as it works in the most nearly universal medium available for the expression of facts, so that facts of great diversity can be presented in the same picture. It is not the presentation of these pictures that is the function of management, but the use of them."

"Cost consciousness" is described as the outstanding feature of the American Industrialist.

Speedy production of figures is a "must". This leads to the development of standard costs, predetermined overhead rates,

[1]Anglo-American Council on Productivity, 21 Tothill Street, London S.W.-1.

Direct Costing (often referred to as "Basic Costs" accounting)[5], centsless accounting[6], unit accounting (avoiding all transcribing) and last, but not least, to reporting of exceptional figures only, instead of full statements.

Uniformity in Cost Accounting

According to the Dean of Accountancy in the United States, Mr. George O. May[7] accounting is utilitarian and based on conventions (some of which are necessarily of doubtful correspondence with fact) although many accountants are reluctant to admit that Accounting is not based on something of a higher order of sanctity than conventions. Accounting procedures have, in the main, been the result of common agreement between accountants, though they have to some extent and particularly in recent years been influenced by laws or regulations. This is true for financial accounting but cannot be entirely applied to Cost Accounting in its predominant role in Accounting in Industry It must be admitted that pronouncement on cost accounting terminology and uniform agreements on cost accounting procedures are thoroughly lacking up to this date. As deplorable as this fact may be, it is an invigorating challenge to the Accountant in Industry and it may be permissible to express the hope that we will see in the foreseeable future, statements on cost accounting procedure published by the top organizations in this field similar to the Accounting Research Bulletins issued by the Committee on Accounting Procedure, American Institute of Accountants, or Statements on Auditing Procedure issued by the Committee on Auditing Procedure, American Institute of Accountants, or the Accounting or Auditing practices statements issued by the Committee on Accounting and Auditing Research of the Dominion Association of Chartered Accountants (now Canadian Institute of Chartered Accountants). Statements of this kind are the sign of reaching maturity in any one profession and it may be admitted without damage to the cost accountants' stature that we are a very young and youthful group which has not yet achieved maturity.

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[5]An Appraisal of Direct Costing, by John A. Beckett, N.A.C.A. Bulletin, December 1951.
[6]Penny Elimination in Accounting Records — A Case Report, by E. C. Jordan, Cost and Management, January 1952.
[7]Financial Accounting — A Distillation of Experience, New York, 1943, The McMillan Company.

The Future of the Accountant in Industry

Present trends in both methods and principles of Accounting in Industry give some indication of what we may expect in the near future.

Mr. Daniel M. Sherhan, Vice-President of the Mansanto Chemical Co., in his address before the 1951 Annual Conference of the Controllers Institute of America portrays what seems to be in store for the Accountant in industry, if and when the marvellous brain machines now developed chiefly in the United States, but also in Canada, will become available to an enlarged number of concerns at rational costs. Mr. Sherhan states in part:

> "Reports which formerly consumed 50 man days in manual preparation are now produced through the use of the so-called "brain" or electronic programmed calculator in eight hours. Future electronic equipment may produce them in one hour. The drudgery, the pencil pushing of accounting will be eliminated. Future accountants will devote their time to interpretation of facts and solution of company problems rather than to worrying about records. It is my prediction that through the use of electronic equipment, monthly reports of companies — particularly those of large size — will be available only a day or two after the month's close. It seems possible that by reason of this equipment controllers will prepare operating reports semi-monthly, or possibly oftener, rather than only monthly."

It seems that the Controller's Department will in the foreseeable future become a plant within the plant, operating mostly machines and producing statistical reports and financial statements with the minimum of personal effort in the production, but the maximum of brain work in their planning and lay-out. This development will complete the process in which the bookkeeping clerk becomes more and more a machine operator in overalls and the accountant becomes a designer and planner and as such an active creative member of the management team.

« STUDENT SECTION »

Comments by J. D. CAMPBELL, C.A., R.I.A.

ACCOUNTING I, 1952 EXAMINATION

QUESTION IV (6 marks)

On March 28th the Renning Company sold Brown and Company $3,000 worth of merchandise, terms $600 cash and a 3-month non-interest bearing note for the balance. The note was dated March 28th. On April 28th the note was discounted at the bank at a discount rate of 6 per cent. per annum. (All months are to be taken as 30 days and days of grace are to be ignored). At maturity date Brown and Company were unable to pay.

Required:

All entries in general journal form on the books of Renning Company from March 28th to the date of maturity inclusive.

Solution to Question IV (6 marks)

March 28	Cash	$600	
	Note receivable	2,400	
	Sales		$3,000
	To record sale or Alternative for above		
	Accounts receivable	3,000	
	Sales		3,000
	Cash	600	
	Note receivable	2,400	
	Accounts receivable		3,000
April 28	Cash	2,376	
	Interest expense	24	
	Note receivable		2,400
	To record discounting of Brown's *note* with the bank 6% of $2,400 x 1/6 equals $24		
June 28	Accounts receivable	2,400	
	Cash		2,400
	To record payment of dishonored note to bank and charging to Brown of value of note and interest expense.		

Comments:

This question was well answered. Certain exceptions appeared in the way of errors in calculation of amount of interest expense and the omission of certain entries which were required to complete the entire transaction outlined.

Where the dishonored note is charged back the entry is made debiting accounts receivable rather than notes receivable since such dishonored notes cannot again be presented for discount.

Where the student used the account notes receivable discounted it was accepted providing the entries which were made conformed with the use of this account.

QUESTION V (7 marks)

Record the following in the general journal of H. Mack:—

January 10 H. Mack sent merchandise to R Smith on consignment, $6,000. H. Mack paid freight on this shipment amounting to $100.

January 20 H. Mack received word from R. Smith that he had sold half of the consignment, details as follows:

Gross proceeds		$4,000.00
Smith's commission	$240.00	
Smith's expenses	40.00	280.00
Balance for which Smith enclosed cheque		$3,720.00

Solution to Question V (7 marks))

January 10	Consignment—Out (R. Smith)	$6,100	
	Merchandise Inv. or purchases		$6,000
	Cash		100
	To record sending goods on consignment to Smith and payment of freight expense.		
January 20	Cash	3,720	
	Consignment—Out (R. Smith)		3,720
	To record receipt of cash from Smith		
	Gross proceeds	$4,000	
	Less Commission $240		
	Expenses 40	280	
		$3,720	

Comments:

The difficulties which were encountered by the student in presenting the solution to this particular question arose out of the failure to recognize the necessity of having the accounts reflect either in detail or by total the results of the operating of the specific consignment. The above solution is by no means the only solution to the question and where the student presented accounts with relevant entries which provided the necessary information on the basis of the individual consignment due credit was given. .

In a number of cases the entries which the student presented were in no way differentiated from the ordinary transactions of the business, whereas, certain of the information was recorded specifically earmarked as applicable to the consignment. In this particular case penalties were imposed if it indicated that the student didn't have a clear grasp as to just what he was attempting to present.